

Serial No.: 09/525,361

Filed: March 15, 2000

IN THE SPECIFICATION:

Please replace the paragraph beginning at page 7, line 21, with the following rewritten paragraph:

A1
– Figure 13 (SEQ ID NO:1) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCR3. The start and stop codons are underlined. –

A2
Please replace the paragraph beginning at page 7, line 23, with the following rewritten paragraph:

– Figure 14 (SEQ ID NO:2) shows an embodiment of an open reading frame of a nucleic acid encoding BCR3, wherein the start and stop codons are underlined. –

A3
Please replace the paragraph beginning at page 8, line 1, with the following rewritten paragraph:

– Figure 15 (SEQ ID NO:3) shows an embodiment of an amino acid sequence of BCR3. The signal peptide is underlined and the transmembrane domain is shaded. In a preferred embodiment, a soluble form of BCR3 is provided wherein the signal peptide is deleted or preferably naturally cleaved, and the transmembrane domain is deleted, inactivated, or BCR3 is truncated to exclude the transmembrane domain. –

A4
Please replace the paragraph beginning at page 8, line 6, with the following rewritten paragraph:

– Figure 16 shows the amino acid sequence of BCR3p1 (SEQ ID NO:4) and BCR3p2 (SEQ ID NO:5). –

A5
Please replace the paragraph beginning at page 8, line 9, with the following rewritten paragraph:

– Figure 18 (SEQ ID NO:6) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCQ8. The start and stop codon are underlined. –

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Please replace the paragraph beginning at page 8, line 11, with the following rewritten paragraph:

a4
– Figure 19 (SEQ ID NO:7) shows an embodiment of an open reading frame of a nucleic acid encoding BCQ8, wherein the start and stop codons are underlined. –

Please replace the paragraph beginning at page 8, line 13, with the following rewritten paragraph:

a7
– Figure 20 (SEQ ID NO:8) shows an embodiment of an amino acid sequence of BCQ8. The signal peptide is underlined twice and the transmembrane domain is underlined. In a preferred embodiment, a soluble form of BCQ8 is provided wherein the signal peptide is deleted, and the transmembrane domain is deleted, inactivated, or BCQ8 is truncated on either end as desired, to exclude the transmembrane domain. –

Please replace the paragraph beginning at page 8, line 18, with the following rewritten paragraph:

a8
– Figure 21 shows the amino acid sequence of BCQ8p1 (SEQ ID NO:9) and BCQ8p2 (SEQ ID NO:10). –

Please replace the paragraph beginning at page 8, line 21, with the following rewritten paragraph:

a9
– Figure 23 (SEQ ID NO:11) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a differentially expressed protein provided herein, human BCQ5. –

Please replace the paragraph beginning at page 8, line 23, with the following rewritten paragraph:

a10
– Figure 24 (SEQ ID NO:12) shows an embodiment of an open reading frame of a nucleic acid encoding human BCQ5. –

Please replace the paragraph beginning at page 9, line 1, with the following rewritten paragraph:

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a 11
– Figure 25 shows embodiments of amino acid sequences of BCQ5 by providing an alignment wherein human (SEQ ID NO:13) is above mouse (SEQ ID NO:14) which is above rat (SEQ ID NO:15). –

Please replace the paragraph beginning at page 9, line 3, with the following rewritten paragraph:

a 12
– Figure 26 shows the amino acid sequence of BCQ5p1 (SEQ ID NO:16), BCQ5p2 (SEQ ID NO:17) and BCQ5p3 (SEQ ID NO:18). –

Please replace the paragraph beginning at page 9, line 7, with the following rewritten paragraph:

a 13
– Figure 28 (SEQ ID NO:19) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a differentially expressed protein provided herein, mouse BCQ5. –

Please replace the paragraph beginning at page 9, line 9, with the following rewritten paragraph:

a 14
– Figure 29 (SEQ ID NO:20) shows an embodiment of an open reading frame of a nucleic acid encoding mouse BCQ5. –

Please replace the paragraph beginning at page 9, line 10, with the following rewritten paragraph:

a 15
– Figure 30 (SEQ ID NO:21) shows an embodiment of a nucleic acid (partial mRNA) which includes a sequence which encodes a differentially expressed protein provided herein, rat BCQ5. –

Please replace the paragraph beginning at page 9, line 12, with the following rewritten paragraph:

a 16
– Figure 31 (SEQ ID NO:22) shows an embodiment of a partial open reading frame of a nucleic acid encoding rat BCQ5. –

Please replace the paragraph beginning at page 9, line 13, with the following rewritten paragraph:

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a17
– Figure 32 (SEQ ID NO:23) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCH1. Start and stop codons are underlined.—

Please replace the paragraph beginning at page 9, line 15, with the following rewritten paragraph:

a18
– Figure 33 (SEQ ID NO:24) shows an embodiment of an open reading frame of a nucleic acid encoding BCH1, wherein start and stop codons are underlined. —

Please replace the paragraph beginning at page 9, line 17, with the following rewritten paragraph:

a19
– Figure 34 (SEQ ID NO:25) shows an embodiment of an amino acid sequence of BCH1. In a preferred embodiment, isolated BCH1 excludes the signal sequence, amino acids 1-19. —

Please replace the paragraph beginning at page 9, line 19, with the following rewritten paragraph:

a20
– Figure 35 shows the amino acid sequence of BCH1p1 (SEQ ID NO:26) and BCH1p2 (below; SEQ ID NO:27). —

Please replace the paragraph beginning at page 10, line 13, with the following rewritten paragraph:

a21
– Figure 42 (SEQ ID NO:28) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCN1. Start and stop codons are shaded, and Accession number AA419622 sequence is underlined. —

Please replace the paragraph beginning at page 10, line 16, with the following rewritten paragraph:

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Q28
– Figure 43 (SEQ ID NO:29) shows an embodiment of an amino acid sequence of BCN1. A putative transmembrane domain is predicted to be at least at approximately positions 201-217 and 67-83. The protein may be a type IIIa membrane protein and may have additional transmembrane domains. –

Please replace the paragraph beginning at page 10, line 19, with the following rewritten paragraph:

A23
– Figure 44 shows the amino acid sequence of BCN1p1 (SEQ ID NO:30) and BCN1p2 (SEQ ID NO:31). –

Please replace the paragraph beginning at page 10, line 22, with the following rewritten paragraph:

Q24
– Figures 46A-46D (SEQ ID NO:32) show an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCN2. Start and stop codons are shaded, and Accession number AA428090 sequence is underlined. –

Please replace the paragraph beginning at page 11, line 1, with the following rewritten paragraph:

Q25
– Figure 47 (SEQ ID NO:33) shows an embodiment of an amino acid sequence of BCN2. –

Please replace the paragraph beginning at page 11, line 4, with the following rewritten paragraph:

Q26
– Figures 49A-49B (SEQ ID NO:34) show an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCN5. Start and stop codons are shaded, and Accession number R51309 sequence is underlined. –

Please replace the paragraph beginning at page 11, line 7, with the following rewritten paragraph:

Q27
– Figure 50 (SEQ ID NO:35) shows an embodiment of an amino acid sequence of BCN5. A putative signal sequence is shaded and preferred sequence is underlined. –

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Please replace the paragraph beginning at page 11, line 11, with the following rewritten paragraph:

a 28
– Figure 52 (SEQ ID NO:36) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCO2. Start and stop codons are underlined.–

Please replace the paragraph beginning at page 11, line 13, with the following rewritten paragraph:

a 29
– Figure 53 (SEQ ID NO:37) shows an embodiment of an open reading frame of a nucleic acid encoding BCO2.–

Please replace the paragraph beginning at page 11, line 14, with the following rewritten paragraph:

a 30
– Figure 54 (SEQ ID NO:38) shows an embodiment of an amino acid sequence of BCO2. –

Please replace the paragraph beginning at page 11, line 15, with the following rewritten paragraph:

a 31
– Figure 55 shows an alignment of amino acids for human BCO2 (SEQ ID NO:39) above mouse BCO2 (SEQ ID NO:40). –

Please replace the paragraph beginning at page 11, line 18, with the following rewritten paragraph:

a 32
– Figure 57 (SEQ ID NO:41) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCX2. Start and stop codons are underlined.–

Please replace the paragraph beginning at page 11, line 20, with the following rewritten paragraph:

a 33
– Figure 58 (SEQ ID NO:42) shows an embodiment of an open reading frame of a nucleic acid encoding BCX2. –

Please replace the paragraph beginning at page 11, line 21, with the following rewritten paragraph:

a 34
– Figure 59 (SEQ ID NO:43) shows an embodiment of an amino acid sequence of BCX2. –

Please replace the paragraph beginning at page 12, line 5, with the following rewritten paragraph:

a 35
– Figure 62 (SEQ ID NO:44) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCX3. Start and stop codons are underlined. –

Please replace the paragraph beginning at page 12, line 7, with the following rewritten paragraph:

a 36
– Figure 63 (SEQ ID NO:45) shows an embodiment of an open reading frame of a nucleic acid encoding BCX3. –

Please replace the paragraph beginning at page 12, line 8, with the following rewritten paragraph:

a 37
– Figure 64 (SEQ ID NO:46) shows an embodiment of an amino acid sequence of BCX3. –

Please replace the paragraph beginning at page 12, line 11, with the following rewritten paragraph:

a 38
– Figure 66 (SEQ ID NO:47) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCA2. Start and stop codons are shaded, and Accession number D12485 sequence is underlined. –

Please replace the paragraph beginning at page 12, line 14, with the following rewritten paragraph:

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a39

– Figure 67 (SEQ ID NO:48) shows an embodiment of an amino acid sequence of BCA2. –

Please replace the paragraph beginning at page 12, line 15, with the following rewritten paragraph:

a40

– Figure 68 (SEQ ID NO:49) shows an embodiment of a nucleic acid (mRNA) which includes a sequence which encodes a breast cancer protein provided herein, BCR2. Start and stop codons are shaded, and Accession number AA609773 sequence is shown underlined. –

a41

Please replace the paragraph beginning at page 12, line 18, with the following rewritten paragraph:

– Figure 69 (SEQ ID NO:50) shows an embodiment of an amino acid sequence of BCR2. –

a42

Please replace the paragraph beginning at page 13, line 1, with the following rewritten paragraph:

– Figure 72 (SEQ ID NO:51) shows an embodiment of a nucleic acid which includes a sequence which encodes a breast cancer protein provided herein, BCJ7. –

a43

Please replace the paragraph beginning at page 13, line 3, with the following rewritten paragraph:

– Figure 73 (SEQ ID NO:52) shows an embodiment of a nucleic acid which includes a sequence which encodes a breast cancer protein provided herein, BCY3. –

a44

Please replace the paragraph beginning at page 19, line 15, with the following rewritten paragraph:

– The extracellular domains of transmembrane proteins are diverse; however, conserved motifs are found repeatedly among various extracellular domains. Conserved structure and/or functions have been ascribed to different extracellular motifs. For example, cytokine receptors are characterized by a cluster of cysteines and a WSXWS (W= tryptophan, S= serine, X=any amino acid) motif (SEQ ID NO:53). Immunoglobulin-like domains are highly conserved. Mucin-like domains may be involved